

## ABSTRACT

A receiver method and apparatus for performing equalization in the cover domain are disclosed. A receiver includes a cover equalizer that minimizes co-channel interference (CCI) between signals transmitted using different covers. The receiver includes at least one recorrelator which recorrelates received samples using a non-reference cover and a reference cover, producing recorrelated samples. After recorrelation, signals received from the non-reference transmitter can be treated in much the same way as a multipath signal received from the reference transmitter, or as a signal received through another receive antenna from the first transmitter. Such signals can be weighted in a weight generator using any of a variety of combining methods. Other types of equalization, for example in the time domain or in the space domain, may be performed before, after, or in conjunction with cover equalization.